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Akio Aoyama

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EXAMINER

CASCA, FRED A

ART UNIT

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2617

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/700,483	<b>Applicant(s)</b> AOYAMA, AKIO	
	<b>Examiner</b> FRED A. CASCA	<b>Art Unit</b> 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 October 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-73 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☒ Claim(s) 1-73 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |  |
|--|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                                  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____   |

### DETAILED ACTION

1. This action is in response to applicant's amendment filed on October 8, 2008. Claims 1-73 are still pending in the present application. **This Action is made Final.**

#### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2, 5, 7-13, 16-17, 20-21, 24, 26-28, 30-32, 35-36, 38-40, 43, 45-50, 53 and 55-73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gallagher et al (US 2004/0192211 A1) in view of Desgagne (US6,047,191) and further in view of Sekiyama (US 2002/0065604 A1).

Referring to claim 1, Gallagher discloses a method of collecting information used for adjustments with an information collecting server (fig. 1, "server 24") in a radio communication system connected to at least one mobile radio terminal for performing user communications (abstract and figs. 1-2 and 14 and par. 57), comprising: in said mobile radio terminal, monitoring a communication status of a user communication and detecting, as a trigger (par. 57, "handover", note that a cellular terminal continuously receives beacon signals transmitted from a base station. The beacon signal is received from multiple base stations in the area. A trigger for handover happens when the beacon signal from the present base station becomes weaker

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relevant to the beacon signal from a neighbor base station), when a change of said communication status has satisfied a predetermined condition (par. 57, 65 and 71, “when the subscriber devices 12 cross boundary”, note that there could be multiple predetermined conditions for handover, e.g., weaker signal strength, call traffic ...etc weaker signal strength corresponds to change of signals which corresponds to change of communication status.); acquiring a reception status of a radio signal (fig. 2 and par. 57 and 71, “location tracking module 122 monitors signal strength from the base station”, note that the location tracking module 122 is part of the subscriber device); acquiring a coordinate position of said mobile radio terminal (fig. 2 and par. 38, module 106 contains a location tracking module 122 that records the current location"); and sending measured information including said reception status said information collecting server (par. 60 and fig. 1, “subscriber device 12 transits to the base station 18 information on the signal strengths ... base station 18 forwards this information to the system server 24”);

and in said information collecting server, recording said measured information received from said mobile radio terminal (fig. 1-2 and 7, and par. 60, note that the server 24 sends the information to the visitor location register 32, thus it must store it at least in ram in order to send to another server).

Gallagher does not specifically disclose acquiring a reception status of a radio signal when said trigger is detected.

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In the same field of endeavor, Desgagne discloses measuring the signal strength of a mobile station when a call termination occurs (abstract, fig. 1-4, col. 3, lines 29-47 and col. 5, line 53 - col. 6, line 9, "measure the signal strength when the MS is ... terminating access", "terminating access when a seized DTC is disturbed").

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the method of Gallagher in the format claimed, for the purpose of providing an efficient communication system.

The combination of Gallagher/Desgagne does not specifically disclose sending coordinate position to the server.

Sekiyama discloses a mobile station sending coordinate position information to a base station (par. 37, "GPS", "mobile station ... transmits ... position to the wireless base station").

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the combination in the format claimed, for the purpose of providing an efficient communication system.

Referring to claim 2, combination of Gallagher/Desgagne/Sekiyama discloses the method according to claim 1, and further disclose predetermined condition comprises an occurrence of a

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forced disconnection of the user communication (Desgagne, fig. 1-4, col. 3, lines 29-47 and col. 5, line 53 - col. 6, line 9).

Referring to claim 5, combination of Gallagher/Desgagne/Sekiyama discloses the method according to claim 1, and further disclose predetermined condition comprises a call which is made (Gallagher, figure 1-2 and par. 57 and 71).

Referring to claim 7, combination of Gallagher/Desgagne/Sekiyama discloses the method according to claim 1, and further disclose the radio communication system comprises a CDMA radio communication system (par. 49, "CDMA").

Referring to claim 56, combination of Gallagher/Desgagne/Sekiyama discloses the method according to claim 1, and inherently disclose acquiring a reception status further includes acquiring at least one of a received signal quality and a received signal intensity of a common channel (par. 49, "CDMA").

Referring to claim 57, combination of Gallagher/Desgagne/Sekiyama discloses the method according to claim 1, and further disclose acquiring said coordinate position information further includes acquiring coordinate information of said mobile radio terminal by using Global Positioning System (Sekiyama, par. 37, "GPS").

Referring to claim 8, claim 8 recites features analogous to the features of claim 1. Thus, the combination of Gallagher/Desgagne/Sekiyama discloses all elements of claim 8.

Referring to claim 9, combination of Gallagher/Desgagne/Sekiyama discloses the method according to claim 8 and further discloses the server sending trigger information simultaneously to the at least one mobile radio terminal based on load status on a radio circuit (Gallagher, fig. 2 and par. 57 and 71, Desgagne, fig. 1-4, col. 3, lines 29-47 and col. 5, line 53 - col. 6, line 9).

Referring to claim 10, combination of Gallagher/Desgagne/Sekiyama discloses the method according to claim 8 and further discloses in said information collecting server, sending value information indicative of a value given for said measured information, which is provided to said mobile radio terminal when said measured information is received; and in said mobile radio terminal, displaying the value indicated by said value information when said value information is received (Gallagher, fig. 2 and par. 57 and 71, Desgagne, fig. 1-4, col. 3, lines 29-47 and col. 5, line 53 - col. 6, line 9).

Referring to claim 11, claim 8 recites features analogous to the features of claim 1. Thus, the combination of Gallagher/Desgagne/Sekiyama discloses all elements of claim 11.

Claims 12-13, 16, 17 and 19 recite features analogous to the features of claims 1-2, 5, 9 and 7. Thus, the combination of Gallagher/Desgagne/Sekiyama discloses all elements of claims 12-13, 16, 17 and 19.

Claims 20-21, 24, and 26 recite features analogous to the features of claims 1-2, 5 and 7. Thus, the combination of Gallagher/Desgagne/Sekiyama discloses all elements of claims 20-21, 24, and 26.

Claims 27-28 and 30 recite features analogous to the features of claims 1, 9 and 7. Thus, the combination of Gallagher/Desgagne/Sekiyama discloses all elements of claims 27-28 and 30.

Claims 31-32, 35, 36, and 38 recite features analogous to the features of claims 1-2, 5, 9 and 7. Thus, the combination of Gallagher/Desgagne/Sekiyama discloses all elements of claims 31-32, 35, 36, and 38.

Claims 39-40, 43 and 45 recite features analogous to the features of claims 1-2, 5, 7 and 7. Thus, the combination of Gallagher/Desgagne/Sekiyama discloses all elements of claims 39-40, 43 and 47.

Claims 46, 47 and 48 recite features analogous to the features of claims 1, 9 and 7. Thus, the combination of Gallagher/Desgagne/Sekiyama discloses all elements of claims 46, 47 and 48.



Claims 49, 50, 53 and 55 recite features analogous to the features of claims 1-2, 5 and 7. Thus, the combination of Gallagher/Desgagne/Sekiyama discloses all elements of claims 49, 50, 53 and 55.

Claims 58, 60, 62, 64, 66, 68, 70 and 72 recite features analogous to the features of claim 56. Thus, the combination of Gallagher/Desgagne/Sekiyama discloses all elements of claims 58, 60, 62, 64, 66, 68, 70 and 72.

Claims 59, 61, 63, 65, 67, 69, 71 and 73 recite features analogous to the features of claim 57. Thus, the combination of Gallagher/Desgagne/Sekiyama discloses all elements of claims 59, 61, 63, 65, 67, 69, 71 and 73.

**4.** Claims 3-4, 6, 14-15, 18-19, 22-23, 25, 29, 33-34, 37, 41-42, 44, 51-52 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gallagher et al (US 2004/0192211 A1) in view of Desgagne (US6,047,191) and further in view of Sekiyama (US 2002/0065604 A1) and still further in view of well known prior art (MPEP 2144.03).

Referring to claim 3, combination of Gallagher/Desgagne/Sekiyama discloses the method according to claim 1.

The combination does not specifically disclose the predetermined condition comprises an occurrence of a handover failure.

The examiner takes official notice of the fact that handover failure is a well known cellular communication deficiency.

It would have been obvious to one of the ordinary skill in the art at the time of invention of modify the combination in the format claimed, for the purpose reducing handover failures.

Referring to claim 4, combination of Gallagher/Desgagne/Sekiyama discloses the method according to claim 1.

The combination does not specifically disclose predetermined condition comprises the lowering of a throughput of said user communication below a predetermined threshold value.

The examiner takes official notice of the fact that detecting lower throughput is well known in the art.

It would have been obvious to one of the ordinary skill in the art to modify the combination in the format claimed, for the purpose of providing an efficient communication system.

Referring to claim 6, combination of Gallagher/Desgagne/Sekiyama discloses the method according to claim 1.

The combination does not specifically disclose in said information collecting server, sending value information indicative of a value to be given for said measured information which is provided, to said mobile radio terminal when said measured information is received; and in said mobile radio terminal, displaying the value indicated by said value information when said value information is received.

The examiner takes official notice of the fact that representing the intensity of signal strength by a value and displaying that value on the monitor of a mobile terminal is well known in the art.

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the combination as claimed so that signal strength is tracked and thus providing an efficient communication system.

Claims 14-15 and 18 recite features analogous to the features of claims 3-4 and 6. Thus, the combination of Gallagher/Desgagne/Sekiyama and well known art discloses all elements of claims 14-15 and 18.

Claims 22-23 and 25 recite features analogous to the features of claims 3-4 and 6. Thus, the combination of Gallagher/Desgagne/Sekiyama and well known art discloses all elements of claims 22-23 and 25.

Claim 29 recites features analogous to the features of claim 9. Thus, the combination of Gallagher/Desgagne/Sekiyama and well known art discloses all elements of claim 9.

Claims 33-34 and 37 recite features analogous to the features of claims 3-4 and 6. Thus, the combination of Gallagher/Desgagne/Sekiyama and well known art discloses all elements of claims 33-34 and 37.

Claims 41-42 and 44 recite features analogous to the features of claims 3-4 and 6. Thus, the combination of Gallagher/Desgagne/Sekiyama and well known art discloses all elements of claims 41-42 and 44.

Claims 51-52 and 54 recite features analogous to the features of claims 3-4 and 6. Thus, the combination of Gallagher/Desgagne/Sekiyama and well known art discloses all elements of claims 51-52 and 54.

### ***Response to Arguments***

5. Applicant's arguments with respect to the rejection of claims 1-73 have been considered but they are not persuasive.

In response to arguments that Gallagher fails to disclose detecting as a trigger when a change of said communication status has satisfied a predetermined condition, the examiner respectfully disagrees. A person of ordinary skill in the art would know that in a handover process such as Gallagher's handover system different RSSI values are detected at the mobile station. These RSSI values read on the trigger when communications status changes. Further, the predetermined condition is the RSSI threshold values that cause the handover.

In response to arguments that the relative signal strength cannot correspond to a change of communication status, the examiner respectfully disagrees. Since signal strength changes relative to the position of a mobile terminal, the relative signal strength affects the communication status of the terminal. Thus, a stronger or weaker signal strength would affect the communication status, e.g., with a much weaker signal strength, a handover would be prompted. Thus, a relative signal strength reads on the change of communication status.

In response to arguments with respect to acquiring a coordinate position, the examiner respectfully disagrees with applicant's arguments. The examiner asserts that tracking of a terminal's position which takes place electronically via a triangulation method or a GPS method involves measuring signal strength and relative a know position. Therefore, Gallagher's position tracking the limitations reads both on "position" and "coordinate position." In response to arguments that in claims 8, 27, 46 and 49, the limitation "a triggering signal being sent from the information collecting server" is not in claim 1, the examiner asserts that the limitation "detecting, as a trigger" in line 5-6 of claim 1 is analogous to the above feature. Further, Gallagher's handover system which discloses transmitting control signal with different RSSI values reads on the above limitation.

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred A. Casca whose telephone number is (571) 272-7918. The examiner can normally be reached on Monday through Friday from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Harper, can be reached at (571) 272-7605. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/VINCENT P. HARPER/

Supervisory Patent Examiner, Art Unit 2617